provided in the anode circuit being dispensed with, steady-state operation will therefore result at a temperature which, in addition to the positive pressure in the cathode compartment 14, on the one hand depends on the properties of the proton-conducting membrane 16 and, on the other hand, can also be set via the speed of the pump 34 which provides the volume flow on the anode side." to --In the fuel cell 10, owing to the operation in water-passthrough mode, a steady-state operating temperature can be set without the need of the cooler normally provided in the anode circuit. The steady-state operating temperature can be set by controlling the positive pressure in the cathode compartment 14 and/or the speed of the pump 34 which provides the volume flow on the anode side.--;

line 29, after "condensing out" insert --water--;
line 30, delete "the water which is lacking"; and
line 31, delete "described".

Page 10, line 1, change "<u>Claims</u>" to --WHAT IS CLAIMED IS:--.

<u>IN THE CLAIMS</u>:

Kindly cancel claims 1-9 on the Amended Sheets, and substitute therefor, new claims 10-23 as follows:

--10. A fuel cell system, comprising:

1) at least one fuel cell which has

a) an anode compartment,

b) a cathode compartment, and

c) a proton-conducting membrane which separates said anode compartment from said

cathode compartment and is capable of allowing water to pass;

2) a cathode circuit in which said cathode compartment is disposed and said cathode circuit further includes a cathode feeder for delivering oxygen-containing gas to said cathode compartment; and

3) an anode circuit in which said anode compartment is disposed and further includes a gas separator, an anode feeder for delivering a liquid coolant/fuel mixture to said anode compartment, and a pump for pumping the liquid coolant/fuel mixture to said anode compartment,

wherein cooling the coolant/fuel mixture circulating in the anode circuit is effected by the fuel cell which is designed for an operation involving water passing through said membrane from the anode compartment into the cathode compartment, and in that an operating temperature of the fuel cell is set by controlling pressure of said cathode compartment or the delivery of the liquid coolant/fuel mixture from said pump.

11. The fuel cell system of Claim 10, further comprising a expander unit disposed in said cathode circuit, wherein water vapour generated in the cathode compartment is delivered to said expander unit.

12. The fuel cell system of Claim 10, further comprising a compressor unit disposed in said cathode feeder.

13. The fuel cell system of Claim 11, further comprising a compressor unit disposed in said cathode feeder.

14. The fuel cell system of Claim 13, further comprising a supercharger intercooler, a cooler, and at least one water separator for water recovery, wherein said supercharger intercooler is disposed downstream of the compressor unit, and said cooler and at least one water separator are disposed downstream of the expander unit.

15. The fuel cell system of Claim 10, further comprising a holding and purification tank disposed in said anode circuit.

16. The fuel cell system of Claim 15, further comprising an anode offtake and a subsidiary branch of the anode offtake, wherein said holding and purification tank is disposed in said subsidiary branch upstream of said gas separator.

17. The fuel cell system of Claim 14, further comprising a feedback line, wherein recycling of recovered water from the at least one water separator into the anode circuit is provided via said feedback line.

18. A fuel cell system, comprising:

1) at least one fuel cell which has

a) an anode compartment,

b) a cathode compartment, and

c) a proton-conducting membrane which separates said anode compartment from said cathode compartment and is capable of allowing water to pass;

2) a cathode circuit in which said cathode compartment is disposed and said cathode circuit further includes a cathode feeder for delivering oxygen-containing gas to said cathode compartment; and

3) an anode circuit in which said anode compartment is disposed and further includes a gas separator, an anode feeder for delivering a liquid coolant/fuel mixture to said anode compartment, and a pump for pumping the liquid coolant/fuel mixture to said anode compartment,

wherein cooling the coolant/fuel mixture circulating in the anode circuit is effected by the fuel cell which is designed for an operation involving water passing through said membrane from the anode compartment into the cathode compartment, and in that an operating temperature of the fuel cell is set by controlling pressure of said cathode compartment and the delivery of the liquid coolant/fuel mixture from said pump.

19. A method of operating a fuel cell system having at least one fuel cell which includes an anode compartment and a cathode compartment which are separated from one another by a proton-conducting membrane, and an anode feeder for delivering a liquid coolant/fuel mixture to the anode compartment, comprising:

setting the operating temperature of the fuel cell by controlling pressure of the cathode compartment or a volume flow of the coolant/fuel mixture into the anode compartment;

passing water through the proton-conducting membrane from the anode compartment into the cathode compartment; and

cooling the coolant/fuel mixture in the anode compartment.

20. The method of claim 19, wherein the operating temperature is between 90 and 110°C.

21. A method of operating a fuel cell system having at least one fuel cell which includes an anode compartment and a cathode compartment which are separated from one another by a proton-conducting membrane, and an anode feeder for delivering a liquid coolant/fuel mixture to the anode compartment, comprising:

setting the operating temperature of the fuel cell by controlling pressure of the cathode compartment and a volume flow of the coolant/fuel mixture into the anode compartment;

passing water through the proton-conducting membrane from the anode compartment into the cathode compartment; and

cooling the coolant/fuel mixture in the anode compartment.

22. The method of claim 21, wherein the operating temperature is between 90 and 110°C.

23. A method of cooling a coolant/fuel mixture provided to a fuel cell system having at least one fuel cell that includes an anode compartment and a cathode compartment which are